

## **Effect of Gold Addition on the Melting Point of Selected Lead-free Alloys**

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Lead-free alloys have been reported to readily dissolve gold [1]. In order to better understand this behavior we have performed a series of experiments dissolving gold into three different lead-free alloys and combinations of them. The three alloys were SAC305, 387, and 405. We found that the gold did readily dissolve into the lead-free alloy and showed up to 2-3% (absolute temperature) difference on the melting point, depending on the composition.

[1] J. Pan, J. Silk, M. Powers, and P. Hyland, Effect of Gold Content on the Reliability of SnAgCu Solder Joints, IPC APEX EXPO Proceedings.